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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/763,170	01/26/2004	Takashi Okazaki	040019	6710

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EXAMINER

CHEN, VIVIAN

ART UNIT PAPER NUMBER

1773

DATE MAILED: 05/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/763,170	OKAZAKI ET AL.	
	Examiner	Art Unit	
	Vivian Chen	1773	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>4-2004</u> . | 6) <input type="checkbox"/> Other: ____.  |

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## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3, 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over

MAJUMDAR ET AL (US 6,514,660) in view of AYLWARD ET AL (US 6,017,686) and

ASAKA ET AL (US 5,437,913) and SHIKANO ET AL (US 2003/0104180).

MAJUMDAR ET AL discloses an electrophotographic imaging material comprising a base sheet material and an image-receiving coating, wherein the base sheet material may be a coated paper substrate (e.g., those disclosed in U.S. Patent No. 6,017,686). (line 50, col. 10 to line 68, col. 11) However, the reference does not explicitly disclose the composition of the image-receiving layer or sheet stiffness.

AYLWARD ET AL discloses that it is well known in the art to use multilayered laminates comprising a pigmented polyolefin layer on a paper base layer as substrates for image receptor sheets. (line 59, col. 3 to line 25, col. 4) in order to obtain useful image-bearing materials.

ASAKA ET AL discloses that it is well known in the art to apply image-receiving coatings containing conductive particles (e.g., antimony-doped tin oxide) to substrates to obtain

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imaging materials having a typical surface resistivities of  $10^9$  to  $10^{13} \Omega$  in order to facilitate the transfer and adhesion of toner and improve electrophotographic image quality. (line 10-25, col. 7; line 21-35, col. 9)

SHIKANO ET AL discloses that it is well known in the art to use sheets with a Clark stiffness of 15-500 in electrophotographic imaging applications (paragraph 0087-0089) in order to facilitate sheet transport during the imaging process and avoid jamming.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to use known image-receiving coatings as disclosed in ASAKA ET AL in the sheets of MAJUMDAR ET AL in order to produce electrophotographic materials with superior image quality. It also would have been obvious to select the sheet stiffness as disclosed in SHIKANO ET AL in order to facilitate sheet handling and transport during the electrophotographic imaging process.

3. Claims 4-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over MAJUMDAR ET AL (US 6,514,660) in view of AYLWARD ET AL (US 6,017,686) and ASAKA ET AL (US 5,437,913) and SHIKANO ET AL (US 2003/0104180);

as applied to claim 1 above,

and further in view of SAKAMOTO ET AL (US 4,880,703).

SAKAMOTO ET AL discloses that it is well known in the art to use highly conductive acicular titanium dioxide particles coated with antimony-doped tin oxide as conductive particles for electrophotographic copying paper, wherein the particles having a typical length of 1-10

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microns and an aspect ratio of 3 or more. (entire document, especially line 32-68, col. 2; line 39-44, col. 3)

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to use known conductive particles as disclosed in SAKAMOTO ET AL in image-receiving coatings as disclosed in ASAKA ET AL in order to produce electrophotographic materials with desirable electrical and mechanical properties.

### *Conclusion*


4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vivian Chen whose telephone number is (571) 272-1506. The examiner can normally be reached on Monday through Thursday from 8:30 AM to 6 PM. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney, can be reached on (571) 272-1284. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

The General Information telephone number for Technology Center 1700 is (571) 272-1700.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

May 1, 2005

  
Vivian Chen  
Primary Examiner  
Art Unit 1773